# A Novel Fisheries Management Tool Based on NASA Data



Bonefish & Tarpon TRUST

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### **Problem: Limited Data**



Tarpon



Tarpon Tagging

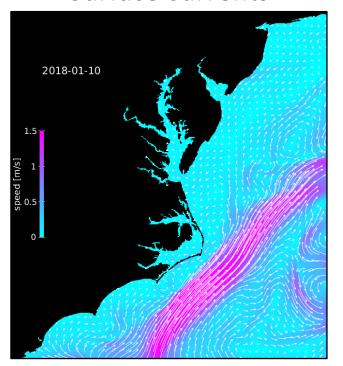


- "Flats" fisheries are world renown (great location, exciting species)
- Difficult to manage due lack of biological data
  - Not commercially caught
  - "Catch and Release" so little data collected
- Tagging efforts fill in some data gaps, but are expensive

### Solution: Ocean Models



#### **Surface Currents**





- Ocean models: cost effective tool to better manage Flats fisheries
- Ocean models are analogous to weather models
- Fathom Science specializes in developing ocean models for many applications

### Solution: Ocean Models



#### **NASA Data**



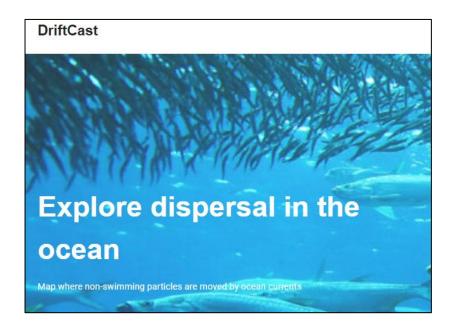
### Ocean models are heavily dependent on NASA data

- Data assimilation
- Validation
- MODIS, VIIRS, GPM, SWOT, ICESat, ...

### New Tool: DriftCast



- A novel tool to view ocean transport of drifting objects
  - Debris, pollution, oil droplets
  - Lost boats
  - Fish eggs & larvae
- User-defined inputs
- Quantify fish population connectivity





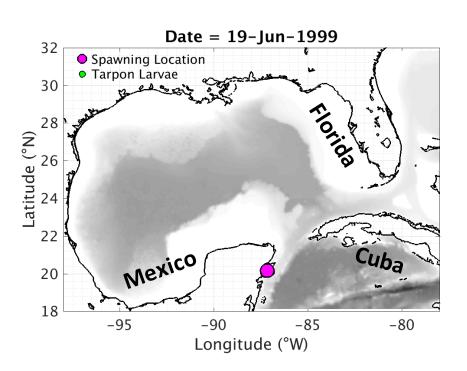
<u>User Specifications</u>			
Date	M/D/Y:		
Duration	Days:		
Location	Longitude:	Latitude:	
Depth	Min:	Max:	Mode:
Start Drift			
Start your drift, download data, and visuals patterns			

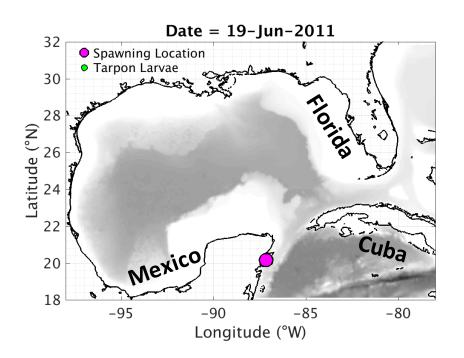
driftcast.fathomscience.com

### New Tool: DriftCast



## **Application: Tarpon Spawning**





Thank you. For more please come by poster# 1-51